

## REMARKS

The Office Action dated April 13, 2006, has been received and carefully noted. The above amendments and the following remarks are submitted as a full and complete response thereto.

By this Amendment, claims 1-3 and 5 have been amended. Support for the amendments to claims 1-3 and 5 can be found in at least paragraphs [0005] and [0008] of the specification as originally filed. Claims 1-5 are pending and respectfully submitted for consideration.

### **Rejections Under 35 U.S.C. § 112**

Claims 1-5 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. The Office Action took the position that while paragraphs [0004] and [0019] enable surface treatment prior to coating, these paragraphs are not enabling for coating with gold prior to surface treatment.

Claim 1 recites "a stainless steel plate having a surface, wherein gold is coated on the surface. . .without surface treatment". Claim 5 recites "a stainless steel plate having a surface, the method comprising a step of coating gold on the surface in an acid bath without performing surface treatment". The Applicants respectfully submit that the features of claims 1 and 5 are recited in the specification as follows.

Paragraph [0005] discloses "a condition of directly forming a gold coating without a surface treatment" and paragraph [0012] discloses "the production method for the metallic separator for a fuel cell of the present invention is characterized in that a gold coating is formed on the surface of the stainless steel plate without performing the

surface treatment". (Emphasis added) As such, the elements of claims 1 and 5 are supported by the text of paragraphs [0005] and [0012] of the specification as originally filed. Accordingly, the Applicants respectfully request withdrawal of the § 112, first paragraph, rejection.

### **Rejection Under 35 U.S.C. § 102**

Claims 1 and 5 were rejected under 35 U.S.C. § 102(b) as being anticipated by Japanese Patent Publication No. JP 10-228914. The Applicants traverse the rejection and respectfully submit that JP 10-228914 fails to disclose or suggest the claimed features of the invention.

As a result of the claimed invention, even if defects, for example, pinholes, are generated, the substrate component is not eluted, by directly performing the coating on the surface of the material plate without surface treatment. Therefore, it is difficult for the gold coating to separate, whereby the contact resistance between the separator and MEA can be suppressed to be low. The Applicants respectfully submit that JP '914 does not disclose or suggest the claimed features of the invention, and thereby fails to provide the critical and non-obvious advantages of the present invention.

Claim 1, as amended, recites that gold is coated on the surface at 2.3 to 94% of area rate with respect to an area where the gold is coated without surface treatment by a nickel coating. The Office Action took the position that because the gold is plated only on the square-wavy top portion of the separator, that the gold is coated on the surface at 2.3 to 94% of area rate. See page 3, lines 1-5 of the Office Action. The Applicants respectfully submit, however, that there is no disclosure or suggestion that gold is coated on the surface of the stainless steel plate in JP 10-228914 at the claimed area

rate with respect to an area where the gold is coated without surface treatment by a nickel coating. Under U.S. patent practice, silence in a reference is not a proper substitute for adequate disclosure of facts from which a conclusion of obviousness may justifiably follow. See In re Burt, 148 USPQ 548 (CCPA 1996). As such, JP '914 is silent regarding gold coated on the surface at 2.3 to 94% of area rate.

Further, JP '914 discloses that there is no pin hole in the area where the gold is coated. See paragraph [0006] of JP '914. That is, the area rate where the gold is coated is 100% in JP '914. Therefore, JP '914 fails to disclose or suggest the claimed features of the invention.

With respect to claim 5, the Applicants respectfully submit that JP 10-228914 fails to disclose or suggest the claimed features of the invention. Claim 5 recites a stainless steel plate having a surface and a step of coating gold on the surface in an acid bath without performing surface treatment, wherein the gold is coated on the surface at 2.3 to 94% of area rate with respect to an area where the gold is coated. The Applicants note that the Office Action did not assert that the reference discloses the step of coating gold on the surface in an acid bath. The Applicants respectfully submit that there is no disclosure or suggestion in JP 10-228914 that the gold is coated on the surface of a stainless steel plate in an acid bath without performing surface treatment. JP 10-228914 merely discloses cleaning the separator material using an inorganic mixing acid and there is no disclosure or suggestion in the reference of an acid bath. In addition, as discussed above with respect to claim 1, JP 10-228914 does not disclose or suggest at least the feature of gold coated on the surface at 2.3 to 94% of area rate. As

such, JP 10-228914 fails to disclose or suggest the features of the invention as recited in claim 5.

According to U.S. patent practice, a reference must teach every element of a claim in order to properly anticipate the claim under 35 U.S.C. §102. In addition, “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). “Every element of the claimed invention must be arranged as in the claim. . . . . [t]he identical invention must be shown in as complete detail as is contained in the patent claim.” Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236 (Fed. Cir. 1989) (emphasis added). The Applicants respectfully submit that JP 10-228914 does not disclose or suggest the features of the invention as recited in claims 1 and 5. Accordingly, JP 10-228914 does not anticipate claims 1 and 5, nor are claims 1 and 5 obvious in view of JP 10-228914. As such, the Applicants respectfully submit that claims 1 and 5 are allowable over JP 10-228914.

### **Rejections Under 35 U.S.C. § 103**

Claims 2-4 were rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 10-228914 as applied to claim 1 above, and further in view of Underwood (U.S. Patent No. 2,133,996). JP 10-228914 was cited for disclosing many of the claimed elements of the invention with the exception of the amount of gold not being less than 0.019 mg/cm<sup>2</sup> (claim 2) that the amount of gold is not more than 1.76 mg/cm<sup>2</sup> (claim 3), and the average grain diameter of the gold which is coated is 0.01 to 50 µm (claim 4). Underwood was cited for curing these deficiencies.

The Applicants traverse the rejection and respectfully submit that claims 2-4 recite subject matter that is neither disclosed nor suggested by the cited references.

Claims 2-4 depend from claim 1. As discussed above, JP 10-228914 does not disclose or suggest a stainless steel plate having a surface, wherein gold is coated on the surface at 2.3 to 94% of area rate without surface treatment. Underwood fails to cure the deficiencies in JP 10-228914 as Underwood also does not disclose the claimed area rate. Underwood merely teaches that the amount of gold in 1 liter of gold plating bath is 0.35 g, and fails to teach the amount of gold with respect to an area where the gold is coated. Since the technical field of Underwood is different from that of the invention, Underwood is not suitable as a reference to the invention. Accordingly, the combination of JP 10-228914 and Underwood fails to teach or suggest the features of the invention as recited in claim 1, and therefore, dependent claims 2-4.

Under U.S. patent practice, the PTO has the burden under §103 to establish a *prima facie* case of obviousness. In re Fine, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Both the case law of the Federal Circuit and the PTO itself have made clear that where a modification must be made to the prior art to reject or invalidate a claim under §103, there must be a showing of proper motivation to do so. The mere fact that a prior art reference could arguably be modified to meet the claim is insufficient to establish obviousness. The PTO can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. Id. In order to establish obviousness, there must be a suggestion or motivation in the reference to do so. See also In re Gordon, 221 USPQ 1125, 1127 (Fed. Cir. 1984)

(prior art could not be turned upside down without motivation to do so); In re Rouffet, 149 F.3d 1350 (Fed. Cir. 1998); In re Dembiczak, 175 F.3d 994 (Fed. Cir. 1999); In re Lee, 277 F.3d 1338 (Fed. Cir. 2002). The Office Action restates the advantages of the present invention to justify the combination of references. There is, however, nothing in the applied references to evidence the desirability of these advantages in the disclosed structure.

In view of the above, the Applicants respectfully submit that the Office Action has failed to establish a *prima facie* case of obviousness for purposes of a rejection of claims 2-4 under 35 U.S.C. § 103.

### **Conclusion**

The Applicants respectfully submit that claims 1 and 5 are allowable. Claims 2-4 depend from claim 1. The Applicants respectfully submit that these dependent claims are allowable at least because of their dependency from allowable base claim 1. Accordingly, the Applicants respectfully request withdrawal of the rejections, allowance of claims 1-5 and the prompt issuance of a Notice of Allowability.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper,

may be charged to counsel's Deposit Account No. 01-2300, referencing Attorney Dkt. No. 108421-00094.

Respectfully submitted,



---

Rhonda L. Barton  
Attorney for Applicants  
Registration No. 47,271

**Customer No. 004372**  
AREN'T FOX PLLC  
1050 Connecticut Avenue, N.W., Suite 400  
Washington, D.C. 20036-5339  
Tel: (202) 857-6000  
Fax: (202) 638-4810

RLB/elz

TECH/419586.1